



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/738,917

DATE: 08/27/2004

TIME: 16:56:19

Input Set : N:\Crf3\RULE60\10738917.raw

Output Set: N:\CRF4\08272004\J738917.raw

1 <110> APPLICANT: Hogrefe, Holly
 2 Hansen, Connie J
 3 <120> TITLE OF INVENTION: Polymerase Enhancing Factor (PEF) Extracts, PEF Protein Complexes,

4 Isolated PEF Proteins, and Methods for Purifying and Identifying

5 <130> FILE REFERENCE: 4121.0116-02

6 <140> CURRENT APPLICATION NUMBER: US/10/738,917

7 <141> CURRENT FILING DATE: 2003-12-16

8 <150> PRIOR APPLICATION NUMBER: US/09/399,003

9 <151> PRIOR FILING DATE: 1999-09-20

10 <150> PRIOR APPLICATION NUMBER: PCT/ US98/05497

11 <151> PRIOR FILING DATE: 1998-03-20

12 <150> PRIOR APPLICATION NUMBER: US 08/957,709

13 <151> PRIOR FILING DATE: 1997-10-24

14 <150> PRIOR APPLICATION NUMBER: US 08/822,774

15 <151> PRIOR FILING DATE: 1997-03-21

16 <160> NUMBER OF SEQ ID NOS: 89

17 <170> SOFTWARE: PatentIn version 3.1

19 <210> SEQ ID NO: 1

20 <211> LENGTH: 15

21 <212> TYPE: PRT

22 <213> ORGANISM: Pyrococcus furiosus

23 <220> FEATURE:

24 <221> NAME/KEY: misc_feature

25 <222> LOCATION: (1)..(15)

26 <223> OTHER INFORMATION: "X" represents any amino acid

27 <400> SEQUENCE: 1

ENTERED

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 29 1 5 10 15

31 <210> SEQ ID NO: 2

32 <211> LENGTH: 15

33 <212> TYPE: PRT

34 <213> ORGANISM: Pyrococcus furiosus

35 <220> FEATURE:

36 <221> NAME/KEY: misc_feature

37 <222> LOCATION: (1)..(15)

38 <223> OTHER INFORMATION: "X" represents any amino acid

39 <400> SEQUENCE: 2

W--> 40 Xaa Xaa Xaa Pro Asp Trp Xaa Xaa Arg Xaa Glu Xaa Leu Xaa Xaa
 41 1 5 10 15

43 <210> SEQ ID NO: 3

44 <211> LENGTH: 35

45 <212> TYPE: PRT

46 <213> ORGANISM: Pyrococcus furiosus

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47 <220> FEATURE:
 48 <221> NAME/KEY: MISC_FEATURE
 49 <222> LOCATION: (1)..(35)
 50 <223> OTHER INFORMATION: "X" represents any amino acid
 51 <400> SEQUENCE: 3

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 53 1 5 10 15
 54 Leu Val Gly Lys Xaa Ile Val Leu Ala Ile Pro Gly Xaa Xaa Ala Xaa
 55 20 25 30
 56 Xaa Xaa Xaa
 57 35
 59 <210> SEQ ID NO: 4
 60 <211> LENGTH: 18
 61 <212> TYPE: PRT
 62 <213> ORGANISM: Pyrococcus furiosus
 63 <220> FEATURE:
 64 <221> NAME/KEY: MISC_FEATURE
 65 <222> LOCATION: (1)..(18)
 66 <223> OTHER INFORMATION: "X" represents any amino acid
 67 <400> SEQUENCE: 4

W--> 68 Xaa Xaa Xaa Pro Asp Trp Xaa Xaa Arg Xaa Glu Xaa Leu Xaa Glu Xaa
 69 1 5 10 15
 70 Xaa Xaa
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 73 <211> LENGTH: 17
 74 <212> TYPE: PRT
 75 <213> ORGANISM: Pyrococcus furiosus
 76 <220> FEATURE:
 77 <221> NAME/KEY: MISC_FEATURE
 78 <222> LOCATION: (1)..(17)
 79 <223> OTHER INFORMATION: "X" represents any amino acid
 80 <400> SEQUENCE: 5

W--> 81 Xaa Tyr Asp Ala Val Ile Met Ala Ala Ala Val Val Asp Phe Arg Pro
 82 1 5 10 15
 83 Lys
 85 <210> SEQ ID NO: 6
 86 <211> LENGTH: 24
 87 <212> TYPE: PRT
 88 <213> ORGANISM: Pyrococcus furiosus
 89 <400> SEQUENCE: 6
 90 Ala Asp Leu Val Val Gly Asn Thr Leu Glu Ala Phe Gly Ser Glu Glu
 91 1 5 10 15
 92 Asn Gln Val Val Leu Ile Gly Arg
 93 20
 95 <210> SEQ ID NO: 7
 96 <211> LENGTH: 17
 97 <212> TYPE: PRT
 98 <213> ORGANISM: Pyrococcus furiosus
 99 <220> FEATURE:

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100 <221> NAME/KEY: MISC_FEATURE
 101 <222> LOCATION: (1)..(17)
 102 <223> OTHER INFORMATION: "X" represents any amino acid
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 105 1 5 10 15
 106 Lys
 108 <210> SEQ ID NO: 8
 109 <211> LENGTH: 18
 110 <212> TYPE: PRT
 111 <213> ORGANISM: Pyrococcus furiosus
 112 <220> FEATURE:
 113 <221> NAME/KEY: misc_feature
 114 <222> LOCATION: (1)..(18)
 115 <223> OTHER INFORMATION: "X" represents any amino acid
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 118 1 5 10 15
 119 Arg Lys
 121 <210> SEQ ID NO: 9
 122 <211> LENGTH: 13
 123 <212> TYPE: PRT
 124 <213> ORGANISM: Pyrococcus furiosus
 125 <400> SEQUENCE: 9
 126 Met Leu His His Val Lys Leu Ile Tyr Ala Thr Lys Leu
 127 1 5 10
 129 <210> SEQ ID NO: 10
 130 <211> LENGTH: 16
 131 <212> TYPE: PRT
 132 <213> ORGANISM: Pyrococcus furiosus
 133 <220> FEATURE:
 134 <221> NAME/KEY: MISC_FEATURE
 135 <222> LOCATION: (1)..(16)
 136 <223> OTHER INFORMATION: "X" represents any amino acid
 137 <400> SEQUENCE: 10
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 139 1 5 10 15
 141 <210> SEQ ID NO: 11
 142 <211> LENGTH: 17
 143 <212> TYPE: PRT
 144 <213> ORGANISM: Pyrococcus furiosus
 145 <400> SEQUENCE: 11
 146 Gly Ala Ile Leu Leu Pro Asp Trp Lys Ile Arg Lys Glu Ile Leu Ile
 147 1 5 10 15
 148 Glu
 150 <210> SEQ ID NO: 12
 151 <211> LENGTH: 16
 152 <212> TYPE: PRT
 153 <213> ORGANISM: Pyrococcus furiosus

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208 <400> SEQUENCE: 17
209 ardacdacyt qrttttcttc 20
211 <210> SEQ ID NO: 18
212 <211> LENGTH: 1209
213 <212> TYPE: DNA
214 <213> ORGANISM: Pyrococcus furiosus
215 <220> FEATURE:
216 <221> NAME/KEY: misc_feature
217 <222> LOCATION: (1)..(1209)
218 <223> OTHER INFORMATION: "n" is a, t, g, or c
219 <400> SEQUENCE: 18
220 atgcttcacc acgtcaagct aatctacgcc acaaaaaagtc gaaagctagt tggaaaaaaag 60
W--> 221 atagtcnnnn nnnnnccagg gagtattcg gctttggatg tgaaagcttg tgagggacta 120
222 attagccatg gggccgaagt tcatgcagtg atgagtgagg cagccaccaa gataattcat 180
223 ccttatgcat ggaatttgcc cacggaaat ccagtcataa ctgagatcac tggatttatac 240
224 gagcatgtt agtagcagg ggaacatgag aataaagcag attaatttt gttttgcct 300
225 gccactgcca acacaattag taagattgca tggaaatag atgatactcc agtaactaca 360
226 gtcgtgacca cagcatttcc ccacattcca attatgatag ccccaatgcaat gcatgagaca 420
227 atgtacaggc atccccatgt aagggagaac attgaaaggt taaagaagct tggcggtgag 480
228 tttataggac caagaattga ggagggaaag gcaaaaatgtt caagcattga tggaaatagtt 540
229 tacagagttttaaaaaagct ccacaaaaaa acattgaaag ggaagagagt cctagtaacg 600
230 gcgggagcaa caagagagta catagatcca ataagattca taacaaatgc cagcgtgga 660
231 aaaatggag tagcgttggc tgaagaagca gattttagag gagctgttac cctcataaga 720
232 acaaaggaa gtgtaaaggc ttttagaattc agaaaaatca aattgaaggt tgagacagt 780
233 gaagaaatgc ttccagcgat tgaaaatgag ttgaggagta aaaagatgtt cgtagtttatt 840
234 atggcagctg ctgtaaagcga ttttaggcca aaaattaaag cagagggaaa aattaaaagc 900
235 ggaagatcaa taacgataga gctcgccn nnnaatccca aaatcattga tagaataaaag 960
236 gaaattcaac caaatgttctt tcttggatgaa tttaaagcag aaactcaaa agaaaagctt 1020
237 atagaagaag gtaaaaggca gattgagagg gccaaggctg acttagtcgt tggtaacaca 1080
238 ttggaaagcct ttggaaagcga ggaaaaccaa gtgtattaa ttggcagaga tttcacaaaa 1140
239 gaacttccaa aaatgaaaaa gagagatgtt gcagagagaa ttggatgaa gatagagaaa 1200
240 ttnctgtcc 1209
242 <210> SEQ ID NO: 19
243 <211> LENGTH: 403
244 <212> TYPE: PRT
245 <213> ORGANISM: Pyrococcus furiosus
246 <220> FEATURE:
247 <221> NAME/KEY: MISC_FEATURE
248 <222> LOCATION: (1)..(403)
249 <223> OTHER INFORMATION: "X" represents any amino acid
250 <400> SEQUENCE: 19
251 Met Leu His His Val Lys Leu Ile Tyr Ala Thr Lys Ser Arg Lys Leu
252 1 5 10 15
W--> 253 Val Gly Lys Lys Ile Val Xaa Xaa Xaa Pro Gly Ser Ile Ala Ala Leu
254 20 25 30
255 Asp Val Lys Ala Cys Glu Gly Leu Ile Arg His Gly Ala Glu Val His
256 35 40 45
257 Ala Val Met Ser Glu Ala Ala Thr Lys Ile Ile His Pro Tyr Ala Trp
258 50 55 60

RAW SEQUENCE LISTING ERROR SUMMARY
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Input Set : N:\Crf3\RULE60\10738917.raw
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,13,14,15
Seq#:2; Xaa Pos. 1,2,3,7,8,10,12,14,15
Seq#:3; Xaa Pos. 1,14,16,21,29,30,32,33,34,35
Seq#:4; Xaa Pos. 1,2,3,7,8,10,12,14,16,17,18
Seq#:5; Xaa Pos. 1
Seq#:7; Xaa Pos. 13
Seq#:8; Xaa Pos. 15,16
Seq#:10; Xaa Pos. 2,3,4,8,9
Seq#:12; Xaa Pos. 1,9,13
Seq#:15; N Pos. 9
Seq#:18; N Pos. 67,68,69,70,71,72,73,74,75,930,931,932,933,1203
Seq#:19; Xaa Pos. 23,24,25,311,401
Seq#:32; N Pos. 15
Seq#:33; N Pos. 15
Seq#:34; N Pos. 15
Seq#:35; N Pos. 15
Seq#:36; N Pos. 20,66
Seq#:37; Xaa Pos. 12,22
Seq#:38; Xaa Pos. 7,22
Seq#:39; Xaa Pos. 7,9
Seq#:41; Xaa Pos. 1
Seq#:42; N Pos. 665,684,686,697,699,700,703,740
Seq#:43; Xaa Pos. 7,9,14,24,26,30,50,52,64,76,78,96,118,121,134,139,153,209
Seq#:43; Xaa Pos. 213,221,228,232,233,234,237,246
Seq#:44; Xaa Pos. 105,129,198,206,215,222,225,228,229,232,233,234
Seq#:45; Xaa Pos. 43,60,110,117,155,162,170,180,195,222,227,229,233,234,235
Seq#:45; Xaa Pos. 243
Seq#:46; Xaa Pos. 23,24,25
Seq#:51; Xaa Pos. 84,85,86,87,88,97,98,99,100,154,155,180,181,182,183,184
Seq#:51; Xaa Pos. 185,287,288,290,311,322,323,324,325,333,348,389,390,417
Seq#:51; Xaa Pos. 434,435,436,437
Seq#:52; Xaa Pos. 104,105,106,107,144,145,173,197,198,294,295,340,368,369
Seq#:52; Xaa Pos. 370,371
Seq#:53; Xaa Pos. 1,3,4,6,7,8,9,11,12,13,14
Seq#:72; Xaa Pos. 1,3,4,6,7,8,10,11,12,13

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 3

VERIFICATION SUMMARY

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Input Set : N:\Crf3\RULE60\10738917.raw
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L:28 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:40 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:52 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3
L:68 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:221 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:60
M:341 Repeated in SeqNo=18
L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:16
M:341 Repeated in SeqNo=19
L:422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
M:341 Repeated in SeqNo=36
L:484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
M:341 Repeated in SeqNo=37
L:498 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
M:341 Repeated in SeqNo=38
L:512 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:535 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:660
M:341 Repeated in SeqNo=42
L:574 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
M:341 Repeated in SeqNo=43
L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:96
M:341 Repeated in SeqNo=44
L:662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:32
M:341 Repeated in SeqNo=45
L:702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:16
L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:80
M:341 Repeated in SeqNo=51
L:829 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:96
M:341 Repeated in SeqNo=52
L:883 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
L:1070 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0